ICF-C55L

AEP Model
UK Model

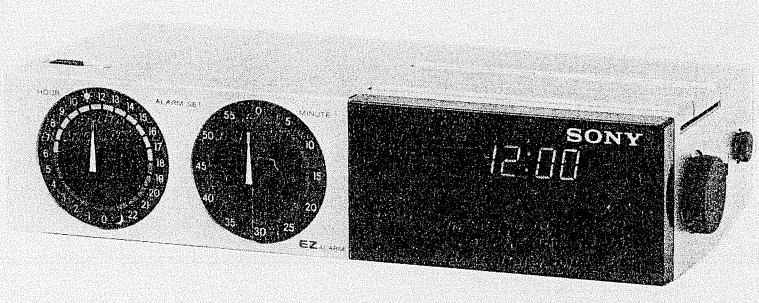


Photo : AEP model

FM/MW/LW DIGITAL CLOCK RADIO

SPECIFICATIONS

Frequency range	FM 87.5 – 108 MHz MW 530 – 1,605 kHz (566 – 187 m) LW 150 – 255 kHz (2,000 – 1,177 m)
Antennas	FM: Wire antenna MW/LW: Built-in ferrite bar antenna
Speaker	Approx. 7.7 cm (3 inches) dia.
Power output	250 mW (at 10% harmonic distortion)
Power requirements	UK model: 240 V ac, 50 Hz AEP model: 220 V ac, 50 Hz For the power backup function: 9 V dc, one battery size 6F22 (IEC designation)
Power consumption	6 W ac (3 W when only the clock is in operation)
Dimensions	Approx. 276 × 72 × 117 mm (w/h/d) ($10\frac{7}{8} \times 2\frac{7}{8} \times 4\frac{5}{8}$ inches) incl. projecting parts and controls
Weight	Approx. 1.1 kg (2 lb 7 oz) incl. battery

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

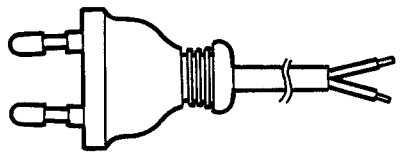
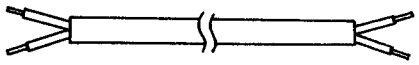
MICROFILM

SONY®

SERVICE MANUAL

MODEL IDENTIFICATION

– Power Cord –

AEP Model Euro-plug 1-534-817-XX	UK Model 1-551-884-00
	

Handling Precautions for MOS ICs

Generally, the insulation resistance of the oxide layer in MOS IC structures is very high, and the oxide layer is very thin. Because of this, it is possible that the static voltages usually present on clothes and the human body will be enough to generate a potential difference across the insulator, high enough to cause a breakdown of the insulating layer.

The following precautions should be taken while handling these ICs.

(Particular care should be taken under conditions of low humidity.)

Precautions in Replacing MOS ICs

1. Store new ICs by inserting them into a urethane-polyester cushion (which is somewhat conductive), or wrapping it in aluminum foil, so that all the pins are at the same potential.
   (The ICs should be stored in that manner until mounted on the circuit board.)

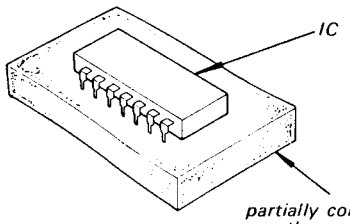


Fig. A

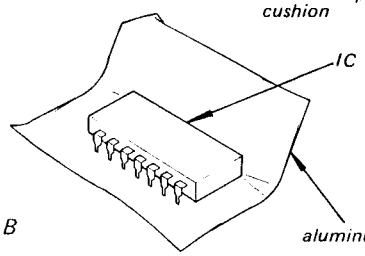


Fig. B

2. Check the soldering iron for possible power-line leakage current. Make sure that there is no leakage path by connecting an ohmmeter to the tip of the soldering iron and the plug as shown in Fig. C. If there is a leakage path, use some other soldering iron.

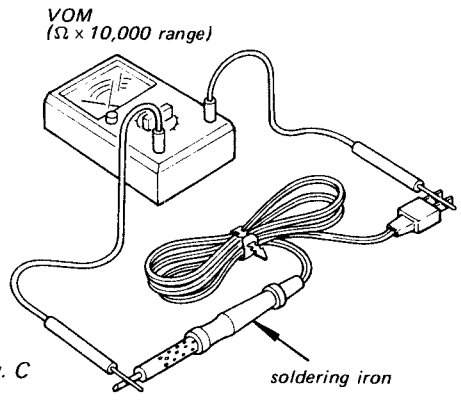


Fig. C

3. Equalize any potential difference between the clothes, the tools in use, the work bench, the set being worked on, and the packaged IC by touching them all in succession with the hands or a conductive wire or tool.
4. The following are effective methods for handling ICs that remove the potential difference across the oxide layer.
   - Use a paper clip modified by soldering in a wire braid insert.

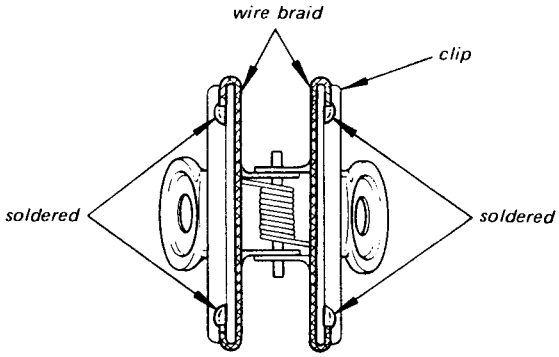


Fig. D Make sure that there is no solder on the inside.

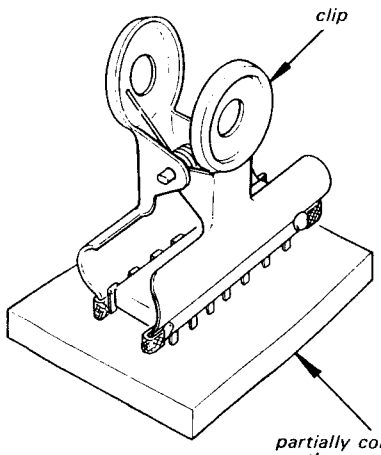
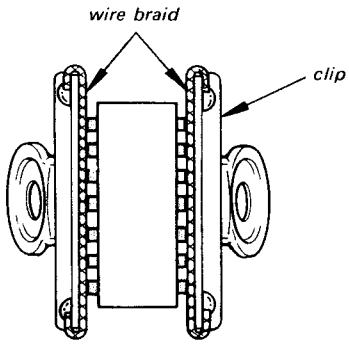


Fig. E



Make sure that all the pins are in contact with the wire braid (all the pins will then be at the same potential.).

Fig. F

- Take a short length of fine bare wire and wind it around the IC so that it shorts all the pins of the IC, while it is still in the urethane-polyester cushion or aluminum foil. This ensures that all the pins are at the same potential.

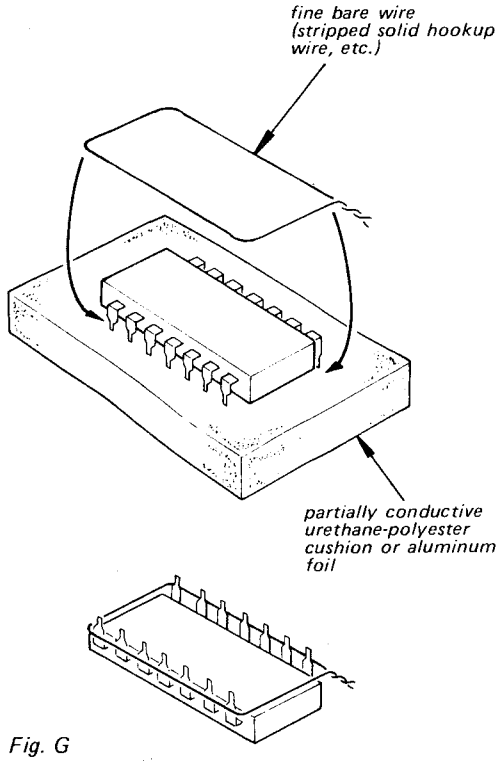


Fig. G

- When it is necessary to handle the IC with the fingers, do not touch any pin, and hold the IC at the ends of its plastic-package case as shown in Fig. H.

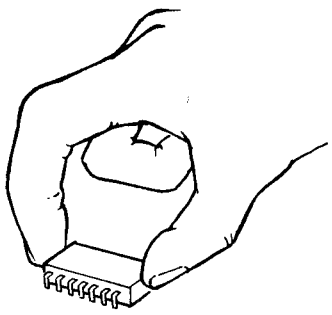


Fig. H

5. Method of Mounting
Insert the IC while holding it with the modified clip, and solder all the pins with the clip still shorting the pins. (Similarly, solder all the pins while the bare shorting wire is still wound around them.). Remove the clip or the bare shorting wire only after all the pins have been soldered.

Precaution while Checking C-MOS ICs

The C-MOS ICs (Complementary MOS) are MOS ICs that have their output sections made up of N-channel and P-channel push-pull stages to increase their speed of operation. If the output terminal of these ICs comes into contact with B+ or B- voltage, then the FET which is ON at that time will either become shorted or open.

This is valid for all the output sections that are connected together by the interconnections. Even the circuits that are physically separated (and not on the same board) can be destroyed simultaneously.

Example:

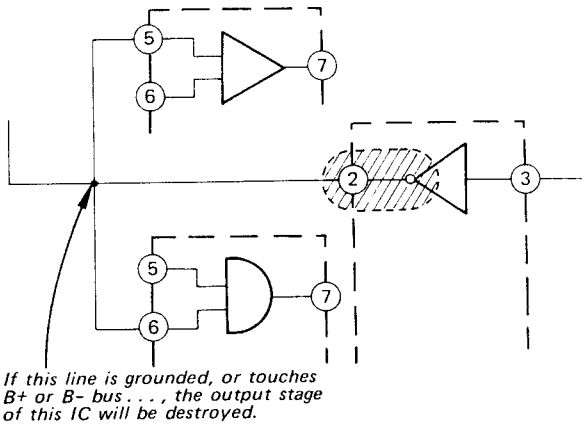
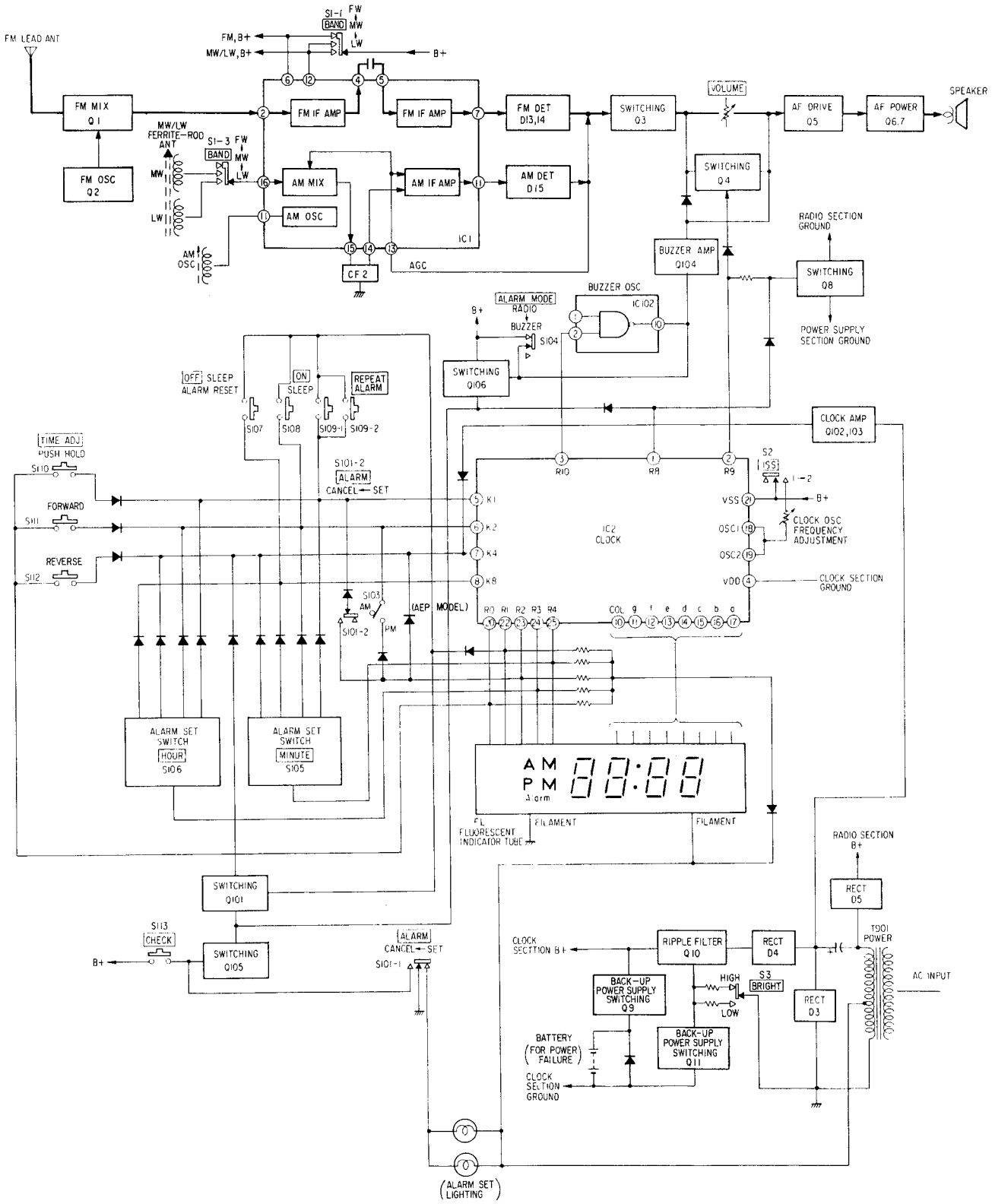


Fig. I

SECTION 1
BLOCK DIAGRAM



SECTION 2
DISASSEMBLY

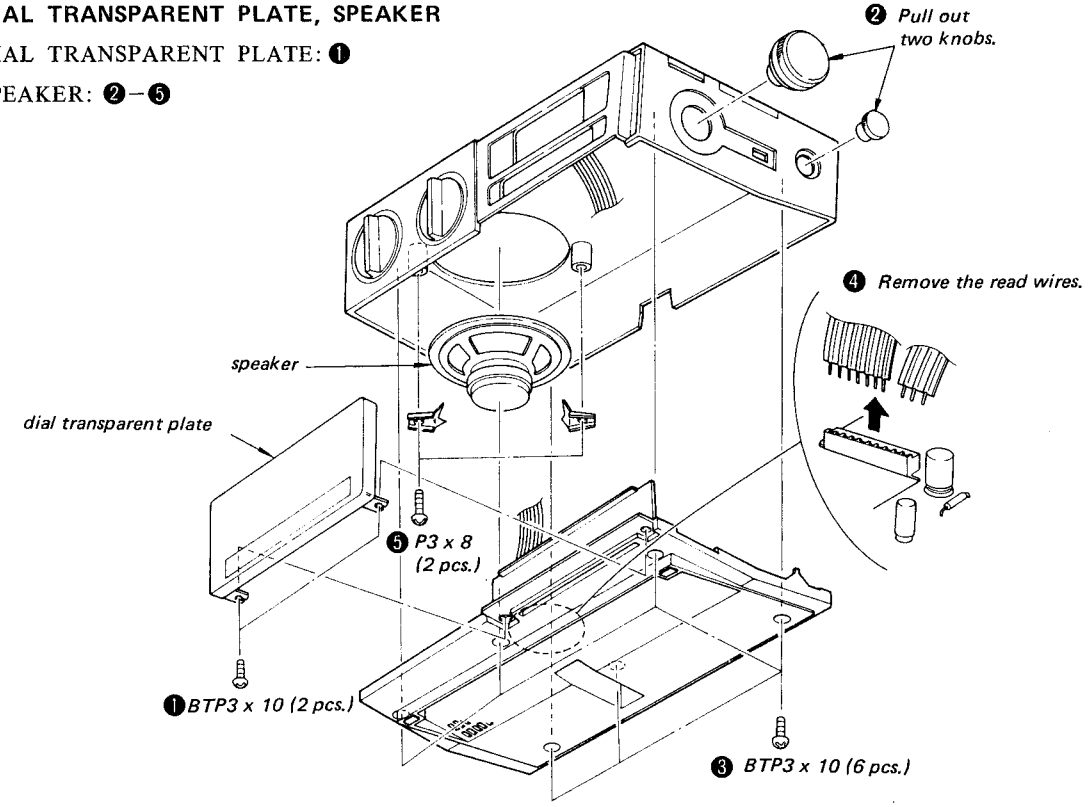
2-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

DIAL TRANSPARENT PLATE, SPEAKER

DIAL TRANSPARENT PLATE: ❶

SPEAKER: ❷–❺

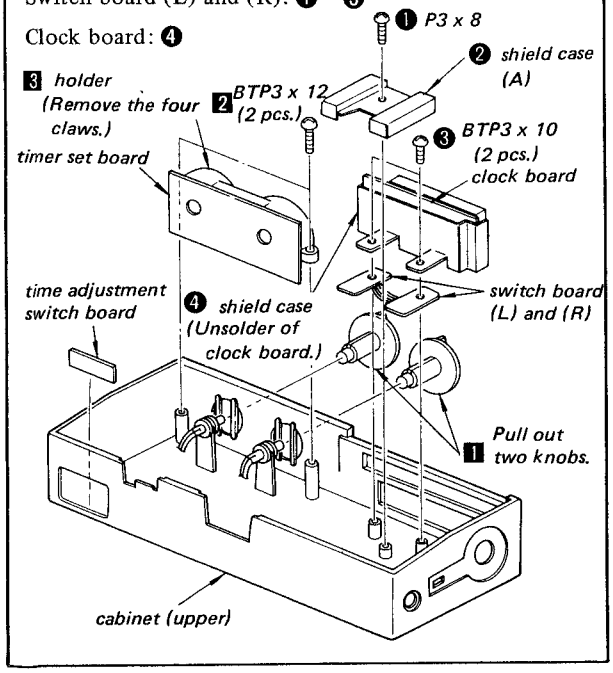


TIMER SET BOARD, CLOCK BOARD, SWITCH BOARD (L), (R)

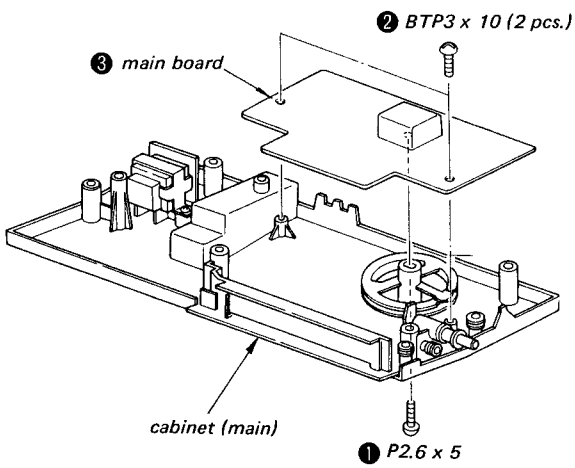
Timer set board: 1–3

Switch board (L) and (R): ❶– ❸

Clock board: ❹

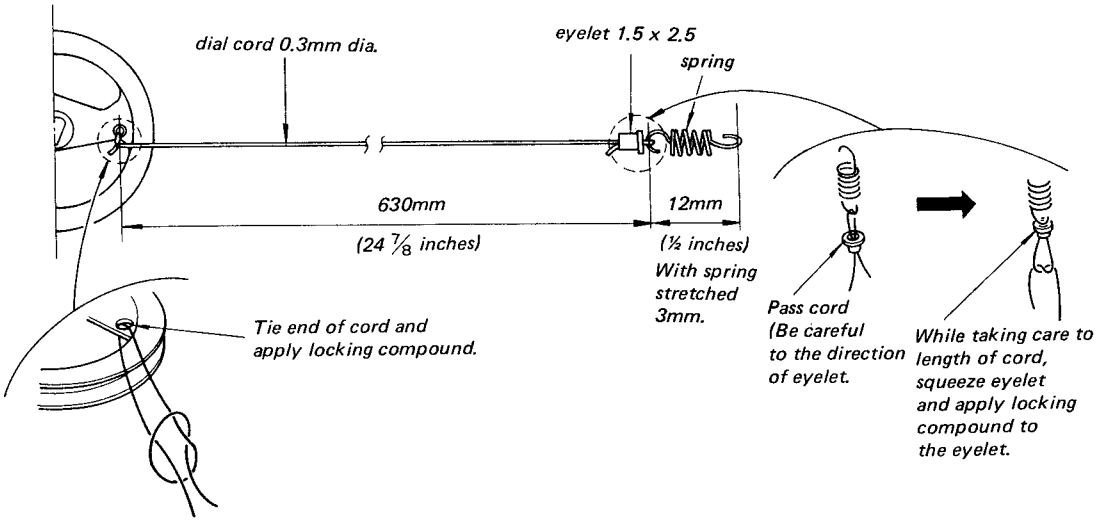

❶ P3 x 8
❷ shield case (A)
3 holder (Remove the four claws.)
2 BTP3 x 12 (2 pcs.)
❸ BTP3 x 10 (2 pcs.) clock board
timer set board
time adjustment switch board
❹ shield case (Unsolder of clock board.)
switch board (L) and (R)
1 Pull out two knobs.
cabinet (upper)

MAIN BOARD



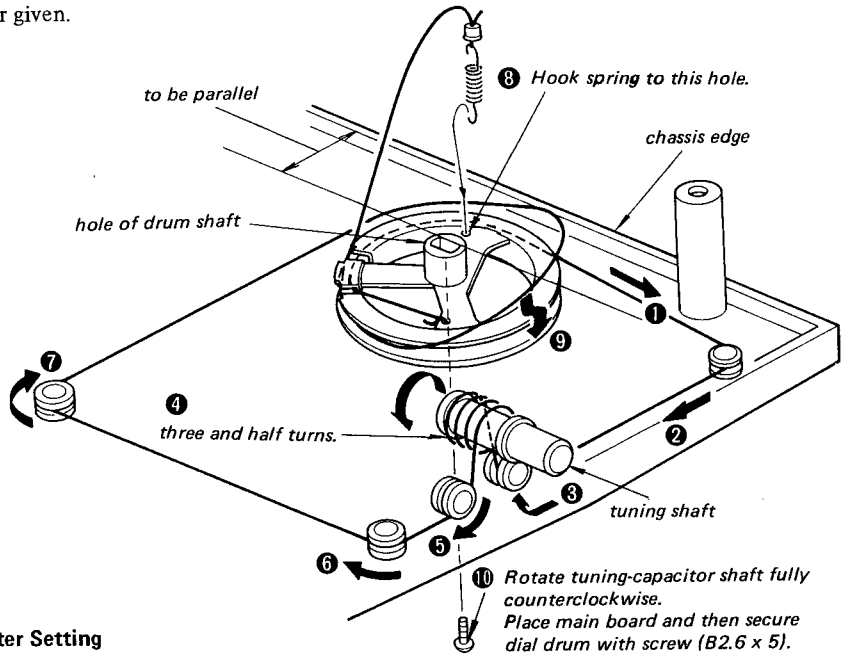
2-2. DIAL CORD STRINGING

1) Preparation


dial cord 0.3mm dia.
eyelet 1.5 x 2.5
spring
630mm
(24 7/8 inches)
12mm
(½ inches)
With spring stretched 3mm.
Tie end of cord and apply locking compound.
Pass cord (Be careful to the direction of eyelet.
While taking care to length of cord, squeeze eyelet and apply locking compound to the eyelet.

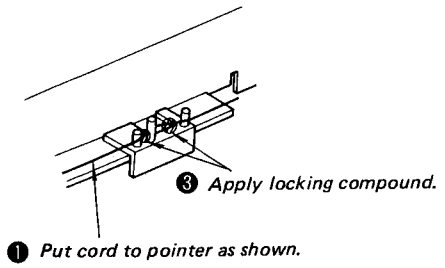
2) Stringing

Set dial drum so that hole of drum shaft is parallel with chassis edge as shown and string cord in the numerical order given.

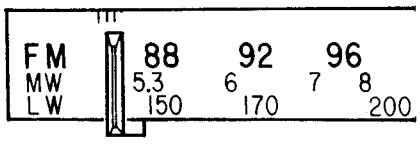


3) Dial Pointer Setting

Rotate tuning shaft fully counterclockwise.

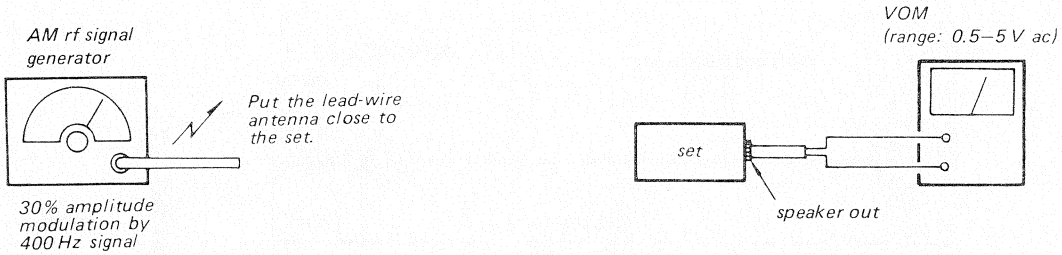


❷ Set the dial pointer as shown below.



SECTION 3
ADJUSTMENTS

AM SECTION

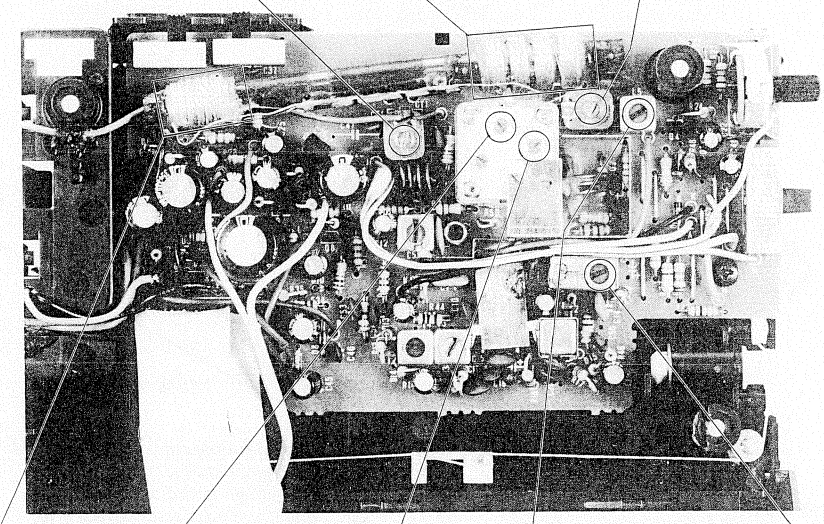

AM rf signal generator
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal
VOM (range: 0.5–5 V ac)
set
speaker out

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
240kHz	160kHz
CT1	L4-2

LW FREQUENCY COVERAGE ADJUSTMENT
Adjust for a maximum reading on VOM.
263kHz
CT2

Note: LW frequency coverage adjustment should be made after MW frequency coverage adjustment.

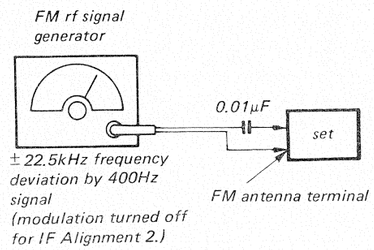


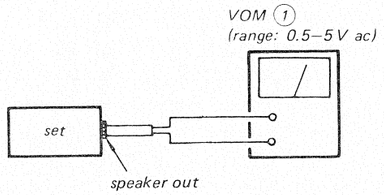
L4-1	CT5
620kHz	1,400kHz
Adjust for a maximum reading on VOM.	
MW TRACKING ADJUSTMENT	

CT6	L5
1,680kHz	520kHz
Adjust for a maximum reading on VOM.	
MW FREQUENCY COVERAGE ADJUSTMENT	

CF2
450kHz
Adjust for a maximum reading on VOM.
AM IF ALIGNMENT

FM SECTION


FM rf signal generator
0.01μF
set
± 22.5kHz frequency deviation by 400Hz signal (modulation turned off for IF Alignment 2.)
FM antenna terminal

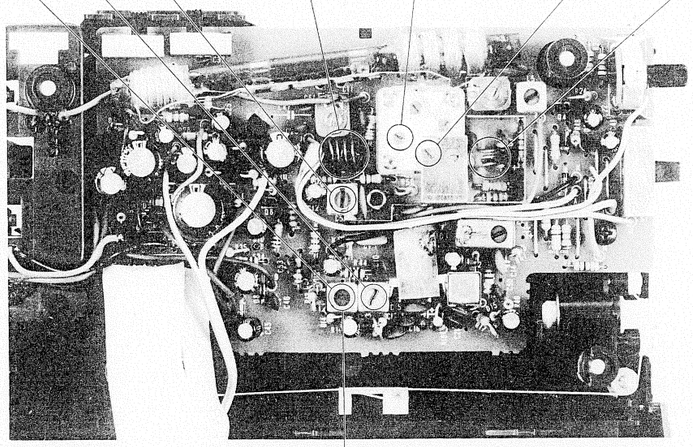


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM IF ALIGNMENT 1		
Adjust for a maximum reading on VOM (1).		
10.7MHz		
T4	T3	T1

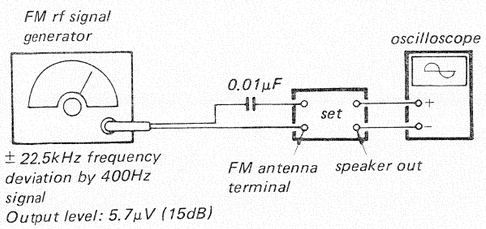
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM (1).	
86.5MHz	109.5MHz
L1	CT3

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM (1).	
109.5MHz	86.5MHz
CT4	L3



FM IF ALIGNMENT 2

Procedure:



1. Turn T4 fully clockwise.
2. Make sure that sinewave appears three times when changing rf signal-generator frequency gradually.
3. Set rf signal-generator frequency for second sinewave, and precisely adjust rf signal-generator frequency for maximum reading on oscilloscope.
4. Adjust T4 for maximum reading and no noise on oscilloscope.

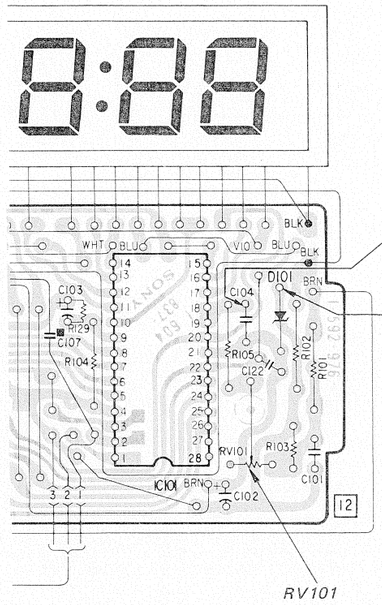
CLOCK OSC FREQUENCY ADJUSTMENT (MICROPROCESSOR SECTION)

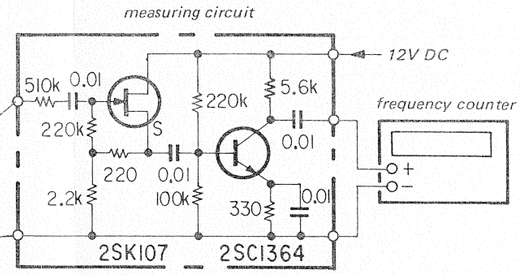
Setting:

ISS switch: 1

Procedure:

Adjust RV101 for 395 – 405kHz reading on the frequency counter.





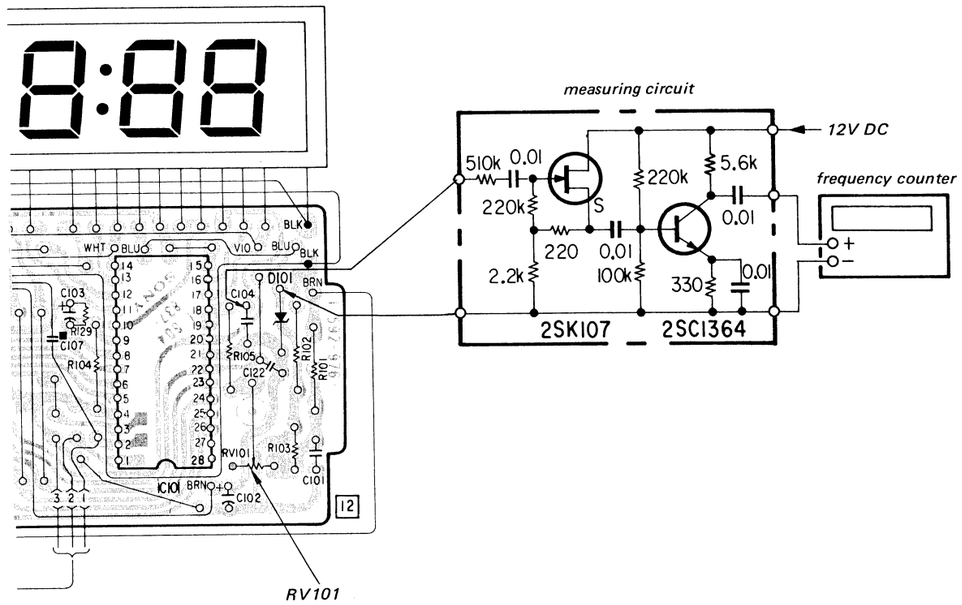
CLOCK OSC FREQUENCY ADJUSTMENT (MICROPROCESSOR SECTION)

Setting:

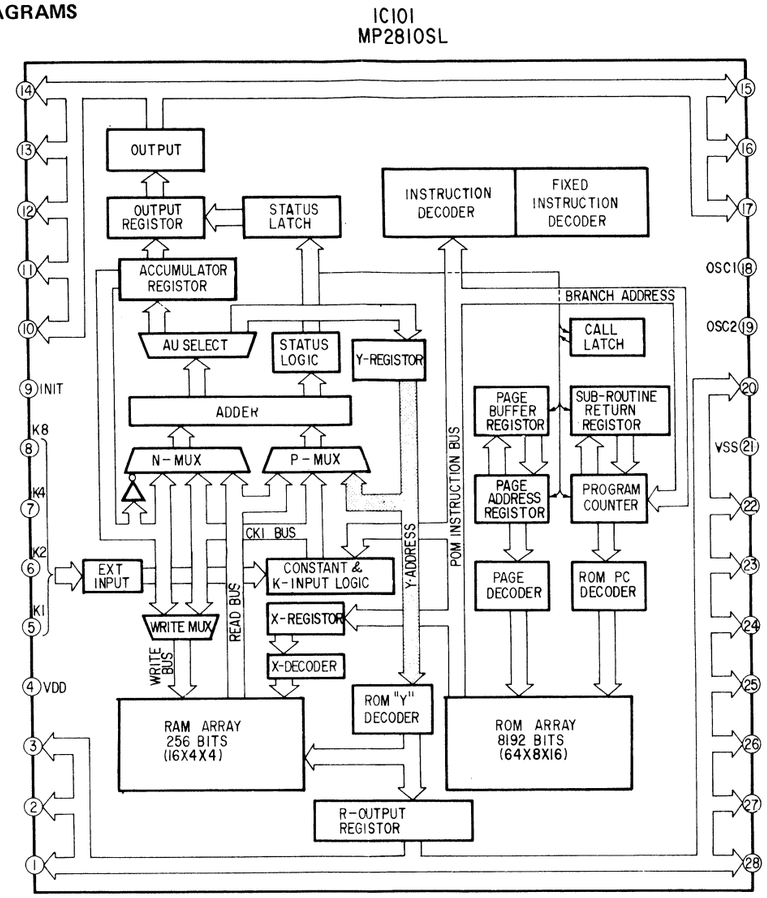
ISS switch: 1

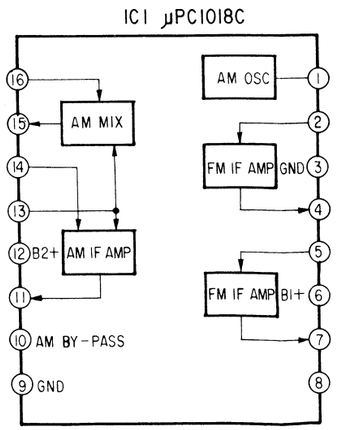
Procedure:

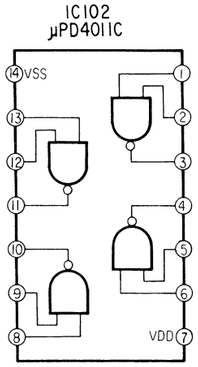
Adjust RV101 for 395 – 405kHz reading on the frequency counter.



IC BLOCK DIAGRAMS

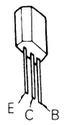




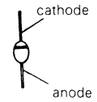


Semiconductor Lead Layouts

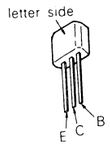
2SA1027R



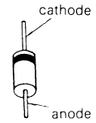
U05G



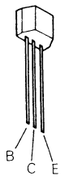
2SA1115
2SC2786
2SC2603



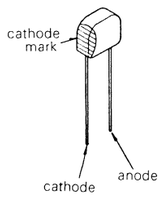
1S1555
1T261
RD10E-N1
GP08B
HP80



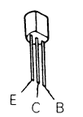
2SD1012
2SB808
2SC2839



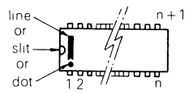
VD1220-M



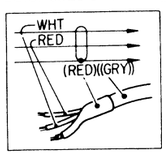
2SC1633-K
2SC1633-P
2SC1674
2SC1364
2SC1364-8



μPC1018C
μPD4011C
MP2810SL



- Color code of sleeving over the end of the jacket.



- ○— : parts extracted from the component side.
- ■ : part mounted on the conductor side.
- [ ]— : indicates side identified with part number.
- ▒ : B+ pattern
- ▬▶▬ : signal path

| | | |

| | | |

4-2. SCHEMATIC DIAGRAM

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- △ : internal component.
- ⊣⊢ and ⊣⊢ : electrolytics.
- ▶ : signal path
- ▭ : adjustment for repair.
- ——: B+ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under sleep no-signal conditions. (BRIGHT switch : HIGH)
  - no mark : FM
  - ( ) : AM
  - < > : alarm
  - (( )) : When S113 is pushed with S101 set "SET" position.
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken by using oscilloscope.

Note: Voltages are measured with a VOM (50kΩ/V).

【MAIN BOARD】

【TIMER SET BOARD】

【CLOCK BOARD】

FM LEAD ANT

UK MODEL

Q2 2SC2839 FM OSC

Q1 2SC2786 FM MIX

IC1 μPC1018C FM/AM IF AMP AM MIX, OSC, AGC

D13, D14 1T261 FM DET

D15 HP80 AM DET

D11 1S1555 CLAMP

D12 1S1555 SWITCHING

D7, D8 1S1555 SWITCHING

L3 FM OSC

L4 MW/LW FERRITE-ROD ANT

L5 AM OSC

T1 FM IFT

T2 AM DET IFT

T3 FM DISC IFT

T4 FM DISC IFT

Q106 2SA1115 SWITCHING

D102 1S1555 SWITCHING

Q102, Q103 2SA1115 CLOCK AMP

IC102 μPD4011C BUZZER OSC

D104 – D107 1S1555 SWITCHING

D109 – D121 1S1555 SWITCHING

【SWITCH BOARD(R)】

【SWITCH BOARD(L)】

【TIME ADJ SWITCH BOARD】

AEP MODEL

UK MODEL

IC101 MP2810 SL CLOCK

Q101 2SA1115 SWITCHING

Q105 2SC2603 SWITCHING

(ALARM SET LIGHTING)

FL FLUORESCENT INDICATOR TUBE

FILAMENT

FILAMENT

D E F G H I J K

1 2 3 4 5

Q1 2SC2786 FM MIX

IC1 μPC1018C FM/AM IF AMP AM MIX, OSC, AGC

DI3, DI4 1T261 FM DET

Q3, Q4 2SC1633-P SWITCHING

Q5 2SC1633-K AF DRIVE

Q6 2SD1012 AF POWER

Q7 2SB808 AF POWER

DI VDI220-M BIAS

Q8 2SD1012 SWITCHING

T1 FM IFT

T2 AM DET IFT

T3 FM DISC IFT

T4 FM DISC IFT

FM IF AMP

AM OSC

AM MIX

AM IF AMP

AM BY-PASS

L1 FM ANT

L2 TRAP

L4 MW/LW FERRITE-ROD ANT

L4-1 MW

L4-2 LW

L5 AM OSC

CF1

CF2

SP

PL1 (DIAL SCALE LIGHTING)

DI1 IS1555 CLAMP

DI2 IS1555 SWITCHING

DI5 HP80 AM DET

D7, D8 IS1555 SWITCHING

【CLOCK BOARD】

Q106 2SA1115 SWITCHING

DI02 IS1555 SWITCHING

Q102, Q103 2SA1115 CLOCK AMP

IC102 μPD4011C BUZZER OSC

Q104 2SA1115 BUZZER AMP

D5 GP08B RECT

D2, DI0 IS1555 SWITCHING

IC101 MP2810 SL CLOCK

ALARM MODE

S104 RADIO BUZZER

S101-2 ALARM CANCEL-SET

S103 AM PM

DI05 DI06 DI21 AEP MODEL

PL102 PL101 (ALARM SET LIGHTING)

FIXED INSTRUCTION DECODER

INSTRUCTION DECODER

EXT INPUT

BRANCH ADDRESS

CALL LATCH

SUB-ROUTINE RETURN REGISTOR

PAGE BUFFER REGISTOR

PROGRAM COUNTER

PAGE ADDRESS REGISTOR

PAGE DECODER

ROM PC DECODER

ROM ARRAY 8192 BITS (64 · 8 · 16)

R-OUTPUT REGISTOR

ROM INSTRUCTION BUS

ADDER

P-MUX

N-MUX

AU SELECT

CONSTANT AND K-INPUT LOGIC

CKI BUS

X-REGISTOR

Y-REGISTOR

ROM "Y" DECODER

X-DECODER

WRITE MUX

WRITE BUS

RAM ARRAY 286 BITS (16 · 4 · 4)

ACCUMU-LATOR REGISTOR

STATUS LOGIC

STATUS LATCH

OUTPUT REGISTOR

OUTPUT

CLOCK OSC FREQUENCY

AM PM Alarm 88:88

FL FLUORESCENT INDICATOR TUBE

FILAMENT

FILAMENT

Q9, Q11 2SA1115 BACK-UP POWER SUPPLY SWITCHING

Q10 2SC2603 RIPPLE FILTER

BATTERY 006P (IEC DESIGNATION 6F22) IPCS 9V FOR POWER FAILURE

D6 IS1555 SWITCHING

D3, D4 IS1555 RECT

D9 IS1555 SWITCHING

DI03 1T261 RECT

DI01 RD10E-N1 REG

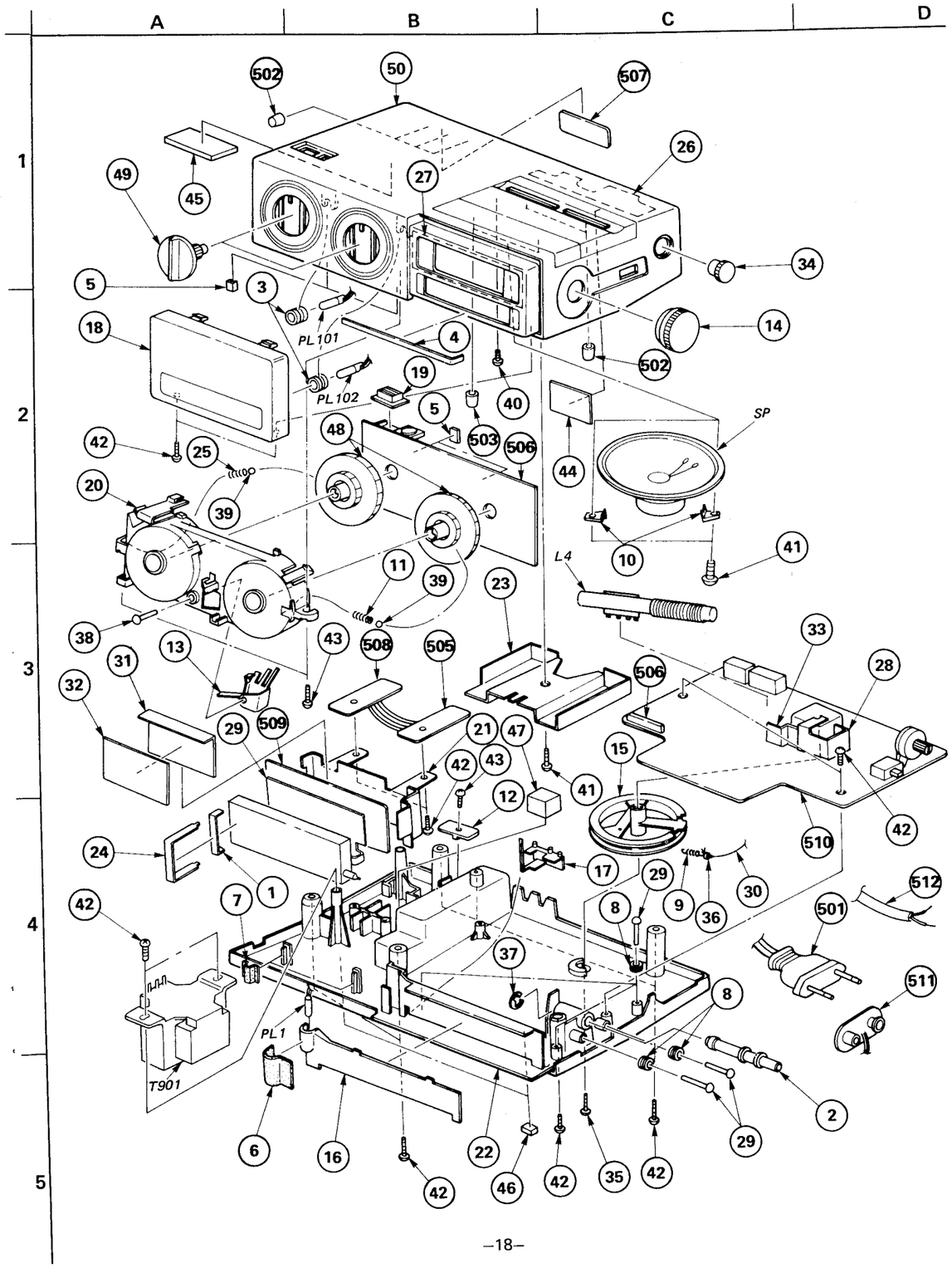
S2 ISS 2 — 1

S3 BRIGHT LOW — HIGH

PT POWER 220V 240V AC 50Hz (UK MODEL)

PT POWER 240V 220V AC 50Hz (AEP MODEL)

SECTION 5
EXPLODED VIEW AND PARTS LIST



GENERAL SECTION

No.	Part No.	Description
1	3-554-104-00	CUSHION, MOTOR
2	3-565-319-00	SHAFT, TUNING
3	3-583-516-00	CUSHION, MOTOR
4	3-664-467-00	CLOTH (A), INTERCEPTION
5	3-831-441-XX	SPACER, KNOB
6	3-831-441-XX	SHEET, FRICTION
7	3-831-441-XX	CUSHION
8	3-834-636-00	PULLEY
9	3-837-172-00	SPRING
10	3-840-975-00	CLAW, SPEAKER
11	3-883-473-00	SPRING, COMPRESSION
12	3-884-408-00	STOPPER, CORD
13	3-888-814-00	SPRING
14	3-888-904-00	KNOB, DIAL
15	3-888-905-00	DRUM, DIAL
16	3-888-907-21	SCALE, DIAL
17	3-888-908-00	POINTER
18	3-888-912-00	PLATE, TRANSPARENT, DIAL
19	3-888-914-00	BUTTON, SELECTION
20	3-888-915-00	HOLDER
21	♦;3-888-917-11	CASE, SHIELD
22	3-888-919-51	(AEP)...CABINET (MAIN)
	3-888-919-61	(UK)....CABINET (MAIN)
23	♦;3-888-922-00	CASE (A), SHIELD
24	♦;3-888-923-00	HOLDER
25	3-888-924-00	SPRING, COMPRESSION
26	♦;3-888-926-00	PLATE (A), SHIELD
27	♦;3-888-927-00	PLATE (B), SHIELD
28	♦;3-888-935-00	CASE, SHIELD (VC)
29	7-625-713-00	RIVET 2X8
30	9-911-825-52	CORD, DIAL
31	♦;3-888-941-00	PLATE (E), SHIELD
32	♦;3-888-942-00	INSULATOR
33	♦;3-888-943-00	PLATE (F), SHIELD
34	4-867-103-11	KNOB, STYLUS PRESSURE
35	7-621-770-87	SCREW +P 2.6X5
36	7-623-610-00	EYELET, 1.5X2.5
37	7-624-109-04	STOP RING 5.0, TYPE -E
38	7-625-209-00	RIVET 2X10
39	7-671-114-01	BALL 4, STEEL
40	7-685-103-11	SCREW +P 2X5 TYPE2 NON-SLIT
41	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT
42	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S
43	7-685-548-19	SCREW +BTP 3X12 TYPE2 N-S

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

GENERAL SECTION

No.	Part No.	Description
44	9-911-815-01	STOPPER
45	9-911-815-01	CUSHION
46	9-911-840-XX	CUSHION (CONTROL)
47	9-911-853-XX	CUSHION, (FA)
48	X-3888-906-2	KNOB SHAFT
49	X-3888-907-2	SET KNOB
50	X-3888-913-1	(AEP)...CABINET (UPPER) ASSY
	X-3888-914-1	(UK)....CABINET (UPPER) ASSY

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-888-945-00	INDIVIDUAL CARTON
3-884-538-11	SHEET, PROTECTION
3-888-928-00	CUSHION (LEFT)
3-888-929-00	CUSHION (RIGHT)
3-995-898-11	MANUAL, INSTRUCTION

ELECTRICAL PARTS

Ref.No.	Part No.	Descrption		
501	⚠.1-534-817-XX	(AEP)...POWER CORD		
502	1-552-900-00	CONTACT, RUBBER		
503	1-553-271-00	CONTACT, RUBBER		
504	♦;1-561-449-00	SOCKET, CONNECTOR 10P		
505	♦;1-604-838-00	PC BOARD, SWITCH (L)		
506	♦;1-604-839-00	PC BOARD, TIMER SET		
507	♦;1-604-840-00	PC BOARD, TIME ADJ SWITCH		
508	♦;1-604-841-00	PC BOARD, SWITCH (R)		
509	♦;A-3660-349-A	MOUNTED PCB, CLOCK		
510	♦;A-3660-350-A	MOUNTED PCB (A), MAIN		
511	1-535-502-XX	SNAP BATTERY		
512	⚠.1-551-884-00	(UK)....POWER CORD		
C4	1-101-576-21	CERAMIC	1.5PF	20% 50V
C6	1-102-642-00	CERAMIC	24PF	5% 50V
C7	1-161-255-00	CERAMIC	4.7PF	10% 50V
C42	1-161-323-00	CERAMIC	0.001MF	10% 50V
C57	⚠.1-161-741-00	CERAMIC	0.001MF	10% 400V
C60	⚠.1-161-741-00	CERAMIC	0.001MF	10% 400V
C118	1-102-106-00	CERAMIC	100PF	10% 50V

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

NOTE:
- Items with nc cription are are seldom re
- Items marked thev are selc service. Son pated when or
- Due to standa numbers (Δ-ΔΔ may be differ set.

Ref.No.
CF1
CF2
CT1
CT2
CT3-6
CV3-6
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
D101
D102
D103
D104
D105
D106
D107
D109
D110
D111
D112
D113
D114
D115
D116
D117
D118
D119
D120
D121
FL
IC1
IC101
IC102

D

GENERAL SECTION

No.	Part No.	Description
1	3-554-104-00	CUSHION, MOTOR
2	3-565-319-00	SHAFT, TUNING
3	3-583-516-00	CUSHION, MOTOR
4	3-664-467-00	CLOTH (A), INTERCEPTION
5	3-831-441-XX	SPACER, KNOB
6	3-831-441-XX	SHEET, FRICTION
7	3-831-441-XX	CUSHION
8	3-834-636-00	PULLEY
9	3-837-172-00	SPRING
10	3-840-975-00	CLAW, SPEAKER
11	3-883-473-00	SPRING, COMPRESSION
12	3-884-408-00	STOPPER, CORD
13	3-888-814-00	SPRING
14	3-888-904-00	KNOB, DIAL
15	3-888-905-00	DRUM, DIAL
16	3-888-907-21	SCALE, DIAL
17	3-888-908-00	POINTER
18	3-888-912-00	PLATE, TRANSPARENT, DIAL
19	3-888-914-00	BUTTON, SELECTION
20	3-888-915-00	HOLDER
21	♦;3-888-917-11	CASE, SHIELD
22	3-888-919-51	(AEP)...CABINET (MAIN)
	3-888-919-61	(UK)....CABINET (MAIN)
23	♦;3-888-922-00	CASE (A), SHIELD
24	♦;3-888-923-00	HOLDER
25	3-888-924-00	SPRING, COMPRESSION
26	♦;3-888-926-00	PLATE (A), SHIELD
27	♦;3-888-927-00	PLATE (B), SHIELD
28	♦;3-888-935-00	CASE, SHIELD (VC)
29	7-625-713-00	RIVET 2X8
30	9-911-825-52	CORD, DIAL
31	♦;3-888-941-00	PLATE (E), SHIELD
32	♦;3-888-942-00	INSULATOR
33	♦;3-888-943-00	PLATE (F), SHIELD
34	4-867-103-11	KNOB, STYLUS PRESSURE
35	7-621-770-87	SCREW +P 2.6X5
36	7-623-610-00	EYELET, 1.5X2.5
37	7-624-109-04	STOP RING 5.0, TYPE -E
38	7-625-209-00	RIVET 2X10
39	7-671-114-01	BALL 4, STEEL
40	7-685-103-11	SCREW +P 2X5 TYPE2 NON-SLIT
41	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT
42	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S
43	7-685-548-19	SCREW +BTP 3X12 TYPE2 N-S

GENERAL SECTION

No.	Part No.	Description
44	9-911-815-01	STOPPER
45	9-911-815-01	CUSHION
46	9-911-840-XX	CUSHION (CONTROL)
47	9-911-853-XX	CUSHION, (FA)
48	X-3888-906-2	KNOB SHAFT
49	X-3888-907-2	SET KNOB
50	X-3888-913-1	(AEP)...CABINET (UPPER) ASSY
	X-3888-914-1	(UK)....CABINET (UPPER) ASSY

ACCESSORY & PACKING MATERIAL

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3-884-538-11	SHEET, PROTECTION
3-888-928-00	CUSHION (LEFT)
3-888-929-00	CUSHION (RIGHT)
3-995-898-11	MANUAL, INSTRUCTION

ELECTRICAL PARTS

Ref.No.	Part No.	Descrption			
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503	1-553-271-00	CONTACT, RUBBER			
504	♦;1-561-449-00	SOCKET, CONNECTOR 10P			
505	♦;1-604-838-00	PC BOARD, SWITCH (L)			
506	♦;1-604-839-00	PC BOARD, TIMER SET			
507	♦;1-604-840-00	PC BOARD, TIME ADJ SWITCH			
508	♦;1-604-841-00	PC BOARD, SWITCH (R)			
509	♦;A-3660-349-A	MOUNTED PCB, CLOCK			
510	♦;A-3660-350-A	MOUNTED PCB (A), MAIN			
511	1-535-502-XX	SNAP BATTERY			
512	⚠.1-551-884-00	(UK)....POWER CORD			
C4	1-101-576-21	CERAMIC	1.5PF	20%	50V
C6	1-102-642-00	CERAMIC	24PF	5%	50V
C7	1-161-255-00	CERAMIC	4.7PF	10%	50V
C42	1-161-323-00	CERAMIC	0.001MF	10%	50V
C57	⚠.1-161-741-00	CERAMIC	0.001MF	10%	400V
C60	⚠.1-161-741-00	CERAMIC	0.001MF	10%	400V
C118	1-102-106-00	CERAMIC	100PF	10%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Descrption
CF1	1-527-795-71	FILTER, CERAMIC
CF2	1-403-163-21	CERAMIC FILTER
CT1	1-141-171-00	CAP, TRIMMER
CT2	1-141-171-00	CAP, TRIMMER
CT3-6, CV3-6	1-151-372-00	CAP, TUNING, POLYETHYLENE
D1	8-719-122-00	DIODE VD1220-M
D2	8-719-815-55	DIODE 1S1555
D3	8-719-815-55	DIODE 1S1555
D4	8-719-815-55	DIODE 1S1555
D5	8-719-991-55	DIODE U05G
D6	8-719-815-55	DIODE 1S1555
D7	8-719-815-55	DIODE 1S1555
D8	8-719-815-55	DIODE 1S1555
D9	8-719-815-55	DIODE 1S1555
D10	8-719-815-55	DIODE 1S1555
D11	8-719-815-55	DIODE 1S1555
D12	8-719-815-55	DIODE 1S1555
D13	8-719-026-11	DIODE 1T261
D14	8-719-026-11	DIODE 1T261
D15	8-719-900-00	DIODE HP80
D101	8-719-102-89	DIODE RD10E-N1
D102	8-719-815-55	DIODE 1S1555
D103	8-719-026-11	DIODE 1T261
D104	8-719-815-55	DIODE 1S1555
D105	8-719-815-55	DIODE 1S1555
D106	8-719-815-55	DIODE 1S1555
D107	8-719-815-55	DIODE 1S1555
D109	8-719-815-55	DIODE 1S1555
D110	8-719-815-55	DIODE 1S1555
D111	8-719-815-55	DIODE 1S1555
D112	8-719-815-55	DIODE 1S1555
D113	8-719-815-55	DIODE 1S1555
D114	8-719-815-55	DIODE 1S1555
D115	8-719-815-55	DIODE 1S1555
D116	8-719-815-55	DIODE 1S1555
D117	8-719-815-55	DIODE 1S1555
D118	8-719-815-55	DIODE 1S1555
D119	8-719-815-55	DIODE 1S1555
D120	8-719-815-55	DIODE 1S1555
D121	8-719-815-55	(AEP)...DIODE 1S1555
FL	1-519-227-00	INDICATOR TUBE, FLUORESCENT
IC1	8-759-110-15	IC UPC1018C
IC101	8-759-928-10	IC MP2810SL
IC102	8-759-914-11	IC UPD4011C

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
L1	♦;1-420-856-00	COIL, FM RF			
L2	♦;1-409-293-00	COIL, AIR CORE			
L3	♦;1-425-795-00	COIL, HIGH FREQ TRANSFORMER(FM)			
L4	1-401-956-00	ANTENNA, FERRITE-ROD (LW/MW)			
L5	1-405-685-00	COIL, MW OSC			
L6	♦;1-401-228-00	ANTENNA COIL			
PL1	1-518-463-00	LAMP, PILOT			
PL101	1-518-464-11	LAMP, PILOT			
PL102	1-518-464-21	LAMP, PILOT			
Q1	8-729-167-42	TRANSISTOR 2SC1674			
Q2	8-729-671-14	TRANSISTOR 2SC2839			
Q3	8-769-663-47	TRANSISTOR 2SC1364			
Q4	8-769-663-47	TRANSISTOR 2SC1364			
Q5	8-769-663-48	TRANSISTOR 2SC1364-8			
Q6	8-729-801-22	TRANSISTOR 2SD1012			
Q7	8-729-880-82	TRANSISTOR 2SB808			
Q8	8-729-801-22	TRANSISTOR 2SD1012			
Q9	8-729-612-77	TRANSISTOR 2SA1027R			
Q10	8-729-606-32	TRANSISTOR 2SC2603			
Q11	8-729-612-77	TRANSISTOR 2SA1027R			
Q101	8-729-612-77	TRANSISTOR 2SA1027R			
Q102	8-729-612-77	TRANSISTOR 2SA1027R			
Q103	8-729-612-77	TRANSISTOR 2SA1027R			
Q104	8-729-612-77	TRANSISTOR 2SA1027R			
Q105	8-729-606-32	TRANSISTOR 2SC2603			
Q106	8-729-612-77	TRANSISTOR 2SA1027R			
R127	1-244-839-00	CARBON	39	5%	1/2W
R129	1-210-114-00	CARBON	22K	5%	1/16W
RV1	1-228-258-00	RES, VAR, CARBON 10K			
RV101	1-226-236-00	RES, ADJ, CARBON 10K			
S1	1-553-174-00	SWITCH, SLIDE			
S2	1-552-370-00	SWITCH, SLIDE			
S3	1-552-370-00	SWITCH, SLIDE			
S101	1-553-504-00	SWITCH, PUSH			
S104	1-552-370-00	SWITCH, SLIDE			
S105	1-552-765-00	SWITCH, KEYBOARD			
SP	1-503-018-11	SPEAKER (7.7CM)			
T1	1-403-872-00	I.F.T			
T2	1-403-960-00	I.F.T DETECTION			
T3	1-404-144-00	TRANSFORMER, DISCRI (FM)			
T4	1-403-953-00	TRANSFORMER, DISCRIMINATOR			
T901	⚠.1-447-216-00	TRANSFORMER, POWER			

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-41[illegible]-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47		–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

CAP. (pF)	RATING							
	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

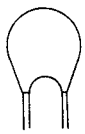
0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.				
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS

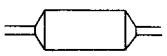
CAP. (μF)	RATING 50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

CAP. (μF)	RATING 3.15 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	25 VOLT. PART No.	35 VOLT. PART No.
	→ : Use the high voltage rated one.						
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			

TANTALUM CAPACITORS



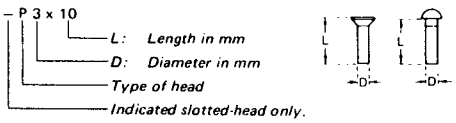
CAP. (μF)	RATING 3 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	35 VOLT. PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/4 WATT CARBON RESISTORS

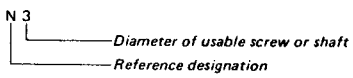
Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	